A generalized procedure for the reaction of a free mercaptan with a glycidyl ether is as follows:

To a stirred mixture of the mercaptan and acid catalyst under nitrogen atmosphere is added the glycidyl ether, either neat or in solution, while maintaining the temperature between 25°-60° C. The mixture or solution is then heated to between 50°-75° C for a period of 1 to 6 hours and conversion to product is monitored by gas chromatography and iodine titration for %SH. The acid catalyst is removed by alkaline wash, the resulting product is dried with magnesium sulfate, and filtered. The solvent, if required, is removed under reduced pressure at <55° C to yield the latent mercaptan. For example, the reaction between mercaptoethanol and glycidyl neodecanoate gives $C_9H_{19}C(=O)OCH_2CH(OH)CH_2SCH_2CH_2OH$. This procedure is referred to hereinafter as Procedure D.

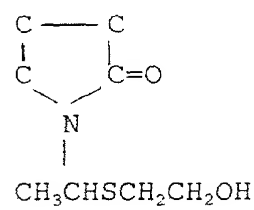
A generalized procedure for the condensation of a free mercaptan with an aldehyde is as follows:

To a stirred solution of the mercaptan, acid catalyst, and azeotropic solvent under nitrogen atmosphere is added the aldehyde with heating to reflux, typically between 65°-120° C, for removal of reaction water. Completion of reaction is achieved after the theory amount of water has been collected. Optionally, to a stirred solution of mercaptan, aldehyde, and ether is added BF_3-etherate dropwise under reflux conditions. The solution is refluxed for between 1 to 6 hours and conversion to product is monitored by gas chromatography. The acid catalyst is removed by alkaline wash, the solution is dried with magnesium sulfate and filtered. The solvent is removed under reduced pressure at <65° C to yield the latent mercaptan. This generalized procedure is referred to hereinafter as Procedure E.

Examples of the blocked mercaptans of this invention include compounds having the following formulas, as each relates to FORMULA 1:

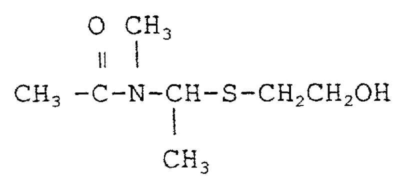
<u>FORMULA</u>

2.



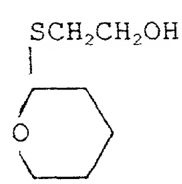
$a = 1$, $m = 1$, $n = 0$; $y = 1$, z is 1; X is nitrogen, R^6 and R^7 are joined to form $-CH_2-CH_2-CH_2-C{=}(O)-$; R^4 is hydrogen; R^5 is methyl; and R^1 is hydroxyethyl.

3.



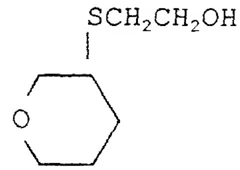
$a = 1$, $m = 1$, $n = 0$; $y = 1$, z is 1; X is nitrogen, R^6 is acetyl, R^7 is methyl, R^5 is methyl, R^4 is hydrogen, and R^1 is hydroxyethyl.

4.



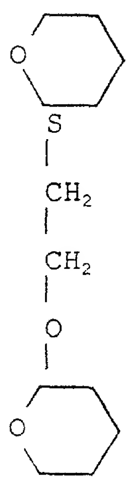
$a = 1$, $m = 0$, $n = 0$; $y = 1$, z is 1; X is oxygen, R^5 and R^7 are joined to form $-CH_2-CH_2-CH_2-CH_2-$; R^4 is hydrogen, and R^1 is hydroxyethyl.

5.



a = 1, m = 0, n = 1, y = 1, z = 1; X is oxygen, R^3 and R^7 join to form $-CH_2-CH_2-CH_2-$; R^2, R^4 and R^5 are hydrogen, and R^1 is hydroxyethyl.

6.



a = 1, m = 0, n = 0, y = 1, z = 1; X is oxygen, R^5 and R^7 join to form $-CH_2-CH_2-CH_2-CH_2-$; R^4 is hydrogen, and R^1 is 2-ethoxytetrahydropyranyl.